

Claims

1. For use in an electrical junction box, a multi-pole electrical connector comprising:
 - 5 (a) an insulating housing having a plurality of conductor ports therein,
 - (b) a plurality of busses, electrically insulated from each other and mounted within said housing, each of said busses having a plurality of conductor wells therein each for receiving an electrical conductor,
 - 10 (c) each of said conductor wells positioned in registration with a different one of said conductor ports.
- 15 2. The multi-pole electrical connector of Claim 1 wherein each conductor well includes a releasable locking means for preventing unintended removal of a conductor inserted in said conductor well.
- 20 3. For use in an electrical junction box, a multi-pole electrical connector comprising:
 - (a) an insulating housing having a plurality of conductor ports therein,
 - (b) a plurality of busses electrically insulated from each other and each corresponding to a different pole and mounted within said housing, each of said busses having a plurality of conductor wells each for receiving an electrical conductor corresponding to a given pole,
 - 25 (c) each of said conductor wells positioned in registration with a different one of said conductor ports.
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4. The multi-pole electrical connector of Claim 3 wherein each conductor well includes a releasable locking means for preventing
5 unintended removal of a conductor inserted in said conductor well.

10 5. For use in an electrical junction box, a multi-pole electrical connector comprising:

15 (a) an insulating housing having a plurality of conductor ports therein,

(b) a plurality of busses, electrically insulated from each other and mounted within said housing, each of said busses formed of two opposing walls of conductive material, each terminating at an edge,

(c) a plurality of wells, each for receiving an electrical conductor, formed between said opposing walls, each of said wells extending from between said walls to an edge of said walls and positioned in registration with said conductor ports,

20 (d) each of said wells having a flared portion at said edge, the flared portion of each well forming a funnel shaped opening into the respective well, and

(e) each of said flared portions extending from an edge of said walls into a corresponding well and terminating within said well.

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30 6. The multi-pole electrical connector of Claim 5 wherein each of said flared portions includes a pair of opposed locking tabs extending therefrom into said well for engaging an electrical conductor extending into said well.

7. The multi-pole electrical connector of Claim 5 wherein each of said flared portions includes a pair of opposed locking tabs extending therefrom into said well for engaging an electrical conductor extending into said well, each of said tabs including an arcuate locking tip.

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8. For use in an electrical junction box, a multi-pole electrical connector comprising:

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(a) an insulating housing having a plurality of conductor ports therein,

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(b) a plurality of busses, electrically insulated from each other and mounted within said housing, each of said busses formed of a single sheet of conductive material formed into a U-shape to provide two opposing walls each terminating in an edge,

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(c) a plurality of wells, each for receiving an electrical conductor, formed between said opposing walls, each of said wells extending from between said walls to an edge of said walls and positioned in registration with said conductor ports,

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(d) each of said wells having a flared portion at said edge, the flared portion of each well forming a funnel shaped opening into the respective well, and

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(e) each of said flared portions extending from an edge of said walls into a corresponding well and terminating within said well.

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9. The multi-pole electrical connector of Claim 8 wherein each of said flared portions includes a pair of opposed locking tabs extending therefrom into said well for engaging an electrical conductor extending into said well.

10. The multi-pole electrical connector of Claim 8 wherein each of said flared portions includes a pair of opposed locking tabs extending therefrom into said well for engaging an electrical conductor extending into 5 said well, each of said tabs including an arcuate locking tip.

11. An electrical buss for use in a multi-pole connector comprising:

10 (a) two opposing walls formed of conductive material, each terminating at an edge,

(b) a plurality of wells, each for receiving an electrical conductor, formed between said opposing walls, each of said wells extending from between said walls to an edge of said walls,

15 (c) each of said wells having a flared portion at said edge, the flared portion of each well forming a funnel shaped opening into the respective well, and

(d) each of said flared portions extending from an edge of said walls into a corresponding well and terminating within said well.

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12. The electrical buss of Claim 11 wherein each of said flared portions includes a pair of opposed locking tabs extending therefrom into 25 said well for engaging an electrical conductor extending into said well.

13. The electrical buss of Claim 11 wherein each of said flared portions includes a pair of opposed locking tabs extending therefrom into said well for engaging an electrical conductor extending into said well, each 30 of said tabs including an arcuate locking tip.

14. An electrical buss for use in a multi-pole connector comprising:

- (a) a single sheet of conductive material formed into U-shape to provide two opposing walls each terminating at an edge,
- (b) a plurality of wells, each for receiving an electrical conductor, formed between said opposing walls, each of said wells extending from between said walls to an edge of said walls,
- (c) each of said wells having a flared portion at said edge, the flared portion of each well forming a funnel shaped opening into the respective well, and
- (d) each of said flared portions extending from an edge of said walls into a corresponding well and terminating within said well.

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15. The electrical buss of Claim 14 wherein each of said flared portions includes a pair of opposed locking tabs extending therefrom into said well for engaging an electrical conductor extending into said well.

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16. The electrical buss of Claim 14 wherein each of said flared portions includes a pair of opposed locking tabs extending therefrom into said well for engaging an electrical conductor extending into said well, each of said tabs including an arcuate locking tip.

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